

## ***Dontsova Tatiana***

*Nationality:* Ukrainian

*Date of Birth:* 07-02-1976

National Technical University of Ukraine «KPI»,  
Chemical Engineering Department,  
Department of inorganic substances technology  
and general chemical engineering,  
Kyiv, Ukraine



**RESEARCH FIELDS:** *semiconductor nanomaterial, synthesis of metaloxide nanostructures by various chemical methods, nanosensors, nanophotocatalysts, solar cells, electrical and optical characterization;*

well as, composite materials based on simple and mixed oxides and other, photocatalysis in the process of hydrogen production, sorption and photocatalysis in technology of water purification.

### **EDUCATION:**

1999-2003	Biocolloidal Chemistry Institute of National Academy Sciences of Ukraine, Kyiv, Ukraine	Ph.D. (Chemical)
1993-1999	National Technical University of Ukraine "KPI", Kyiv, Ukraine	Master's degree

### **RESEARCH / TEACHING EXPERIENCE:**

2008 at present	National Technical University of Ukraine "KPI", Kyiv, Ukraine	Lecturer and Post Doctoral researcher
2003-2008	Biocolloidal Chemistry Institute of National Academy Sciences of Ukraine, Kyiv, Ukraine	Research Assistant

## ACADEMIC PROJECTS:

Research project	Fundamental principles of creation of the newest methods of synthesis nanocomposite and nanostructured materials with specified functional properties
Research project	Synthesis of SnO <sub>2</sub> powders for use in gas sensors
Ph.D Project	Separation of fine disperse sorbents from water solutions through ultra-flocculation and microflotation

## SELECTED PUBLICATIONS:

1. Fedenko Yu.M. **T.A. Dontsova**, I.M. Astrelin // PHYSICOCHEMICAL AND SORPTIVE PROPERTIES OF NANOCOMPOSITES BASED ON ZIRCONIUM(IV) OXIDE, Chemistry and Chemical Technology – 2014. – №1.
2. Iryna M. Ivanenko, **Tetiana A. Dontsova**, Igor M. Astrelin, Vladislav V. Kuzmenko // SYNTHESIS OF TIN(IV) OXIDE CARBON NANOTUBES NANOCOMPOSITES BY SOL-GEL METHOD, Composites Theory and Practice, 13 : 2 (2013), P.113-116.
3. Fedenko Yu.M., **Dontsova T.A.**, Astrelin I.M. // CHARACTERIZATION AND STRUCTURE NANODISPERSED ZIRCONIUM (IV) OXIDE SYNTHESIZED BY VARIOUS METHODS, Nanostructure materials science, 2013, № 2 (in Ukrainian).
4. Iryna M. Ivanenko, **Tetiana A. Dontsova** and other // FUNCTIONALIZATION OF MULTI-WALLED CARBON NANOTUBES SURFACE, Scientific news "KPI", № 5, 2012 (in Ukrainian).
5. Nagirnyak S., **Dontsova T.A.**, Astrelin I.M., Alekseev A.F. // SYNTHESIS AND CHARACTERIZATION OF NANOPARTICLE OXIDE POWDER STANUM (IV) OXALATE WITH STANUM (II), Science news "KPI", 2012, № 2 (in Ukrainian).
6. Fedenko Yu.M., **Dontsova T.A.**, Astrelin I.M. // STRUCTURE AND MORPHOLOGY OF ZIRCONIUM OXIDE (IV) POWDERS SYNTHESIZED BY THE THERMAL METHOD FROM DIFFERENT PRECURSORS Science news "KPI", 2012, № 3.
7. Rulyov N.N., **Dontsova T.A.**, Korolyov V.Ya. // ULTRA-FLOCCULATION OF DILUTED FINE DISPERSE SUSPENSIONS, Mineral Processing & Extrfctive Metall. Rev., 2005, № 26.
8. Patent for model 78674 Ukraine, IPC C 01 B 13/ 18 (2006.01). THE METHOD OF SYNTHESIS OF THE COMPOSITE ACTIVE CARBON - ZIRCONIUM OXIDE

(IV) [Text] / Yu. Fedenko, **T.A. Dontsova**, I.M. Astrelin, I.N. Ivanenko, patent Nat. Sc. University Press of Ukraine "KPI". – U 201211476, appl. 04.10.2012, publ. 03.25.2013, Bull. Number 6. – 4 p.

9. Patent for model 73357 Ukraine, IPC 01G C 19/ 00 (2012.01). THE METHOD OF SYNTHESIS OF NANOCOMPOSITE OXIDE STANUM (IV) - MULTIWALLED CARBON NANOTUBES [Text] / **T.A. Dontsova**, I.N. Ivanenko, S. Nagirnyak and other, patent Nat. Sc. University Press of Ukraine "KPI". – U 201201738, appl. 06.02.2012, publ. 09.25.2013, Bull. Number 18. – 4 p.

10. Patent for model 82970 Ukraine, IPC C 01 B 19/ 00. THE METHOD OF SYNTHESIS NANOHETEROSTRUCTURE MULTI-WALLED CARBON NANOTUBES-METAL OXIDES [Text] / **T.A. Dontsova**, I.N. Ivanenko, I.M. Astrelin, patent Nat. Sc. University Press of Ukraine "KPI". – U 201301415, appl. 02.06.2013, publ. 27.08.2013, Bull. Number 16. – 4 p.

11. Rulyov N.N., **Dontsova T.A.**, Korolyov V.Ya. // WATER PURIFICATION FROM Cs<sup>+</sup> BY SORPTION-FLOCCULATION-MICROFLOTATION TECHNOLOGY, The Second International Conference “Interfaces Against Pollution”, Miskolc, Hungary, May, 27-30, 2002.

12. Rulyov N.N., **Dontsova T.A.** // PAIR BONDING ENERGY OF PARTICLES AND THE OPTIMAL REGIME OF THE HYDRODYNAMIC TREATMENT OF A SUSPENSION IN THE FLOCCULATION PROCESS, XVI European Chemistry at Interfaces Conference, Vladimir, Russia, May, 14-18, 2003.

#### **DECLARATION:**

I hereby declare that the above particulars are true and correct.

Tatiana Dontsova